27. (Canceled)

28. (Amended) A host cell containing the nucleic acid sequence of claim 21 or a complement thereof.

29. (Amended) An expression vector comprising the nucleic acid sequence of claim 21 or a complement thereof.

30. (Canceled)

Remarks

The amendments cancel claims 19, 27, and 30, and place the remaining claims in better form for appeal. The amendments are necessary to respond to the Examiner's 35 U.S.C. §112, second paragraph rejections, which were made for the first time in the Final Office Action. The amendments were not earlier presented because the Appellants believed that the claims were in form for allowance. Appellants respectfully request entry of the Supplemental Amendment. A marked-up copy of the claims is attached.

Respectfully submitted,

Date: June 22, 2001

By: 

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Version with Markings to Show Changes Made

14. (Twice Amended) A diagnostic reagent for early detection of Lyme disease comprising a recombinant FlaA [or P37] protein.

15. (Twice Amended) The diagnostic reagent of claim 14, wherein said protein comprises an [having the partial] amino acid sequence as shown in SEQ ID NO.:2.

16. (Twice Amended) The diagnostic reagent as in claim 14 [15] wherein said [the] recombinant FlaA [or P37] protein comprises [is] a fusion protein.

17. (Twice Amended) The diagnostic reagent as in claim 16 wherein [the FlaA or P37 protein comprises a] said fusion protein [partner that] is approximately a 38 kDaT7 gene 10 product.

19. (Canceled)

21. (Amended) A diagnostic reagent for early detection of Lyme disease produced by [using] a method [for producing recombinant FlaA protein] comprising: providing freshly transformed host cells; constructing a DNA expression vector containing an expressible FlaA encoding DNA sequence; transforming a suitable host cell with said expression vector; plating out said transformed host cells; preparing large scale primary cell cultures from transformed host cells taken from a fresh transformant colony; and inducing FlaA [or P37] protein expression from said host cells in culture to [obtain] produce a recombinant FlaA [or P37] protein.

21. (Amended) A diagnostic reagent as in claim 20 wherein said diagnostic reagent is

22. (Amended) A diagnostic reagent as in claim 20 comprising an [the partial] amino acid sequence as shown in SEQ ID NO:2.

23. (Amended) [A diagnostic reagent as in] The recombinant FlaA protein of claim 20 comprising [the partial] an amino acid sequence encoded by the nucleic acid sequence as shown in SEQ ID NO:3.

24. (Amended) A diagnostic reagent as in claim 20 wherein [the] said recombinant FlaA [or P37] protein is a fusion protein.

25. (Amended) A diagnostic reagent as in claim 24 [20] wherein [the] said [recombinant FlaA or P37 protein comprises a] fusion protein [partner that is approximately] is a 38 kDa T7 gene 10 product.

26. (Amended) A [recombinant FlaA protein] diagnostic reagent as in claim 20 wherein said transformed host cell is an E. coli cell.

27. (Canceled)

28. (Amended) A host cell containing the nucleic acid sequence of claim 21 [15] or a complement thereof.

29. (Amended) An expression vector comprising the nucleic acid sequence of claim 21 [15] or a complement thereof.

30. (Canceled) A diagnostic reagent for detection of Lyme disease comprising an amino acid sequence as in claim 15 which is substantially antigenic to B. burgdorferi antibodies.